



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,371	02/25/2004	Steven R. Slotto	D/A3469	3401
7590	11/25/2005		EXAMINER	
			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	
DATE MAILED: 11/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/786,371	SLOTTO ET AL.	
	Examiner Anh T.N. Vo	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6 and 8 is/are rejected.
- 7) Claim(s) 7 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/25/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Specification Object to

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 2-4 are objected to because of the following informalities:

- * In claim 2, on line 2, --air-- should be inserted after "common" for consistent language.
- * In claim 3, on line 2, "conduit" should be deleted for consistent language.
- * In claim 4, on line 2, --air vent-- should be inserted after "common".

Appropriate correction is required.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 and 8 are rejected under 35 USC 102 (a) as being anticipated by Toshio (JP Pat. 10138506A).

Toshio discloses in Figures 1-5 an ink jet recording apparatus comprising:

- an ink jet printhead (1) (Figure 2);
- a plurality of on-board ink reservoirs (30) for supplying ink to the ink jet printhead (1) (Figure 2);
- a plurality of remote ink containers (41) (Figure 1);
- a plurality of ink supply conduits (51) fluidically connected between the remote ink containers (41) and the on-board ink reservoirs (30) (Figures 1-2);
- a common air vent (61, 62, 66), connected to each one of said plurality of remote ink containers (41), for venting said each one of said plurality of remote ink containers (41) as ink is supplied to the on-board ink reservoirs (30) from said remote ink containers (41) (Figures 1-2);
- a plurality of ink vent lines (64) connected to said common vent, wherein each one of said ink vent lines (64) is connected and associated to one of said plurality of remote ink containers (41) (Figures 1-2);
- wherein the plurality of remote ink containers (41), the common air vent conduit (66) and the plurality of ink vent lines (64) are formed as an integral structure (Figure 1-2);
- wherein each one of said plurality of ink vent lines (64) are routed to said common air vent (61, 62, 66) in maze type configuration to prevent mixing of inks from one of said plurality of remote ink containers (41) to another one of said plurality of remote ink containers, if said drop emitting apparatus is tipped; and
- wherein the remote ink containers (41) are selectively pressurized.

Claims 1-2, and 5 are rejected under 35 USC 102 (e) as being anticipated by Duffield et al. (US Pat. 4,432,005).

Duffield et al. discloses in Figure 1 an ink jet printer comprising:

- an ink jet printhead (4) (column 4, line 56);
- a plurality of on-board ink reservoirs (8a, 8b, 8c) for supplying ink to the ink jet printhead (1);
- a plurality of remote ink containers (14a-14c);
- a plurality of ink supply conduits (12a) fluidically connected between the remote ink containers (14a-14c) and the on-board ink reservoirs (8a, 8b, 8c);
- a common air vent (23), connected to each one of said plurality of remote ink containers (14a-14c), for venting said each one of said plurality of remote ink containers as ink is supplied to the on-board ink reservoirs (8a-8c) from said remote ink containers (14a-14c);
- a plurality of ink vent lines (not shown) connected to said common air vent (23), wherein each one of said ink vent lines is connected and associated to one of said plurality of remote ink containers (14a-14c); and
- wherein the ink jet printhead comprises a piezoelectric ink jet printhead (column 5, lines 2-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 USC 103 (a) as being unpatentable over by Toshio (JP Pat. 10138506A) in view of Yamamoto (US Pat. 5,123, 961).

Toshio discloses the basic features of the claimed invention were stated above but does not discloses that the on-board ink reservoirs and the remote ink containers are configured to

contain melted solid ink.

Yamamoto discloses in Figures 2 and 3 a solid ink (9) for use in a hot-melt ink jet printer comprising the on-board ink reservoirs (4) and the remote ink containers (2 or 8) are configured to contain melted solid ink (column 3, lines 65-68 and column 4, lines 1-4).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Yamamoto in the Toshio ink jet recording apparatus for the purpose of providing a solid ink for use in hot-melt ink jet printer which does not smear the hands of the user when it is supplied to the ink jet printer.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These prior art references (US Pat. 5,276,468; US Pat. 5,861,903; US Pat. 6,030,074; US Pa. 6,494,630; US Pat. 5,489,925; US Pat. 3,822,538; US Pat. 6,588,952; US Pat. 6,824,241) cited in the PTO 892 form show an ink jet printer that is deemed to be relevant to the present invention. These references should be reviewed.

Allowable Subject Matter

Claim 7 would be allowable if *rewritten* to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a drop emitting apparatus comprising a heating structure adjacent an integral structure in the combination as claimed.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M.to 7:00 P.M..

The fax number of this Group 2861 is (571) 273-8300.



ANH T.N. VO
PRIMARY EXAMINER
November 22, 2005